



Oregon

Theodore R. Kulongoski, Governor

Water Resources Department

North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1266
503-986-0900
FAX 503-986-0904

October 22, 2009

RONALD F MCCONNELL WWC #1
STEINMAN BROTHERS DRILLING
3023 SE HOLLY AVE
MILWAUKIE OR 97222

FINAL ORDER

Dear Ron:

The Special Standard request you submitted for owner: CYRK Building LLC, Start Card number 199727 (Well P-1), is hereby approved for the following: You may install this well within 45 feet from an existing underground closed sewage line. The well shall be properly cased and sealed to prevent the commingling of aquifers. In addition, you may also install this well below land surface in a vault. The vault must be constructed per the Oregon Water Resources Department Pit Design (attached) and the lid of the vault shall be permanently marked with the words "Water Well" in order to protect the groundwater resource and to assist Department personnel in locating the well in the future. **As a reminder, the vault must be installed by, or the vault installation must be supervised by you, the licensed and bonded well constructor responsible for the work.** All other construction standards must be adhered to. A copy of your Special Standard Request Form is enclosed.

The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor/or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.

If you have any questions concerning this letter, I may be contacted at (503) 986-0851, or by e-mail at Kristopher.R.Byrd@wrdd.state.or.us.

Sincerely,

Kristopher Byrd, Coordinator
Well Construction Program
Well Construction and Compliance Section

enclosure

cc: Jon Unger, NW Region Well Inspector
File

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.



Water Resources Department
 725 Summer Street NE
 Suite A, Salem, OR 97301-1206
 Phone: 503-596-2400
 Fax: 503-596-2401
 www.wrd.org

Special Standards Request Form

REQUEST FOR WRITTEN APPROVAL TO USE OF A SPECIALTY CONSTRUCTION METHOD UNDER
 PART 17 OF THE OREGON ADMINISTRATIVE RULES (ORS 853-020) (PART 17 OF ORS 853-020)

Before the request can be considered, this form must be completed. Requests shall be submitted to the Well Construction Program Coordinator, Water Resources Department, 725 Summer Street NE, Suite A, Salem, OR 97301-1206. Requests may also be considered by the appropriate Regional Manager.

Date of request: 10/12/2009 Oral approval date (if applicable):

Bonded Well Constructor name, license #, and mailing address:

(1) Location of Well: **NW 14 NE 14** Tax lot **11400** Section **11**
 Township **1 S** Range **1 E** **Multnomah** County

Address at well site:

2002 SE Clinton Street, Portland, Oregon

(2) Start Card Number(s) (for work to be done): **199727**

(3) Name and Address of Land Owner: **CYRK Building, LLC**
1733 NE Seventh, P.O. Box 12085, Portland, Oregon 97212

(4) Distance to the nearest septic tank, drainfield, closed sewage line (if water supply well)
Low Temp Geothermal production well P-1
45' south of closed combined sewer line located in SE Clinton Street, and infiltration well
(see attached site map)

(5) The unusual site conditions which necessitate this request:

- 1.) Because new building covers most of lot. Drilling locations are very limited.
- 2.) The LTG wells must be separated by the maximum distance
- 3.) Limited well sites are in driveways and parking sites

(6) The proposed construction methods that the bonded well constructor believes will be adequate for this well: (attach additional pages if needed)
A 27' surface seal will be installed and wellheads will be located in below grade ODWR-approved vaults.

See attached narrative and diagrams

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See attached diagrams, maps and narrative

PLEASE NOTE:

- (1) The Well Construction Standards serve to protect ground water resources. By approving and issuing this special construction standard the Oregon Water Resources Department is not representing that a well constructed in accordance with this condition will maintain structural integrity or that it meets engineering standards. The well constructor or landowner is responsible for ensuring that a well is constructed in a manner that protects ground water resources as required under Oregon Administrative Rules 690-200 through 690-240.
- (2) If it should be determined at some future date that the well, due to its construction, is allowing ground water contamination, waste or loss of artesian pressure, the undersigned shall return to the site and rectify the problem.
- (3) If oral approval was granted, a written request must be submitted to the Department either within three (3) working days of the date of oral approval or prior to the completion of the associated well work. Failure to submit a written request as described above may void prior oral approval.

I have read and understand the above information. I further attest that the information provided is accurate to the best of my knowledge.

Bonded Constructor Signature: _____

Ronald L. McConell

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SALEM, OREGON LNF**

| | |
|--|-------------------------|
| FOR WATER RESOURCES DEPARTMENT USE ONLY | |
| Date Postmarked _____ | W 199727 |
| Date Hand-Delivered _____ | OWRD Receipt _____ |
| Date Region Office Rec'd _____ | Date Fee Received _____ |
| RECEIVED | Check No. _____ |

OCT 20 2009

START CARD

NOTICE OF BEGINNING OF WELL CONSTRUCTION

(as required by ORS 537.762)

WATER RESOURCES DEPT.
SALEM, OREGON

This form must be completed and the original mailed or delivered to the Water Resources Department, 725 Summer Street NE Suite A, Salem OR 97301-1271 for all new construction, conversion, alteration, deepening and abandonments. This original must be mailed or delivered before work is commenced. A \$125 fee shall accompany the original for all new well construction, conversion, and deepening (make checks payable to the Water Resources Department). In addition, the constructor shall provide a legible copy of this notice to the region office within which the well is being constructed, converted, altered, deepened, or abandoned using one of the following methods: (a) by regular mail no later than three (3) calendar days (72 hours) prior to commencement of work; (b) by hand delivery, during regular office hours before work is commenced; or (c) by FAX before work is commenced. If method (c) is used, a legible copy of the start card shall also be mailed or delivered to the region office no later than the day work is commenced. The Water Resources Commission has authority to impose civil penalties for failure to submit the required \$125 fee with the start card, for failure to submit the \$125 fee in a timely manner, and for failure to timely submit start cards.

Owner's name and mailing address: CYRK Building LLC
 Home Phone: () _____
1753 NE South, PO Box 12085
 Work Phone: () _____
Portland, Oregon 97213

Type of work: Fee **New Construction** No Fee **Alteration (Repair/Recondition)**
 Required: **Conversion** Required: **Abandonment** Orig. Start
 Deepening Orig. Start Card No. _____

Proposed Commencement Date: 10-20-09

Existing or Proposed Well Depth: 170 Diameter: 6 Original Well I.D. Label Number: 101373

Use: Monitoring Domestic Irrigation Community (Public System) **Industrial/Commercial**
 Livestock Dewatering Thermal Injection Other _____

Proposed Well Location:

County Washington Township 15 Range 1E Section 11 Tax Lot 11400
North or South East or West
 1/4 N42 1/4 NE Or Latitude _____ Longitude _____

Street Address of well, if not assigned, nearest address:
2002 SE Clinton, Portland, Or

We have read the back of this form and the information provided is accurate to the best of our knowledge.

Owner/Agent Name _____ Bonded Water Supply/Monitor Well Constructor Name _____ License No. _____
Steinman Bros. Dr. Co.
 Date Signed _____ Company _____ Date Signed 10-15-09

OWNER PLEASE NOTE: This is not a water right application. The owner is responsible for obtaining a water right through the Water Resources Department, if required. The Oregon Health Division requires plans to be submitted and approved prior to construction if the well is to be used as a public system.

ADDITIONAL IMPORTANT INFORMATION ON BACK.

October 12, 2009

Oregon Dept. of Water Resources
725 Summer Street NE, Suite A
Salem, OR 97301
Attn: Kris Byrd, Enforcement

Dear Kris:

Attached are two applications for special standards of work associated with a low temperature geothermal (LTG) system being installed at 2002 SE Clinton Street, Portland, Oregon. Roger Smith of Roger N. Smith Associates, Inc. talked with you about this installation this past August (at which time you said you didn't think it would be a problem). The two applications are one are for the two wells to be installed at the above address. These wells will be used for a non-consumptive-use open loop low temperature geothermal system. One well (P-1) will be a production well and the other (I-1) will be an injection well. Each of the Special Standards request forms are for:

- Setback of each well from a closed combined sewer line is less than 50 feet
- Well head will be finished below grade

Attached are two maps showing the location of the project site and the location of the wells relative to the closed combined sewer. Also attached is the design of the well construction and details of the sub-grade well head vault.

The lot on which these wells are located is be re-developed and will be covered almost entirely by a building (The CYRK Building), therefore, the choice of location is very limited. In addition the wells need to be as far apart as possible to prevent thermal migration. The subsurface well completion is be requested to allow for the installation of wells in future driveways, again because of the lack of other space available for well installation.

Construction of these wells is anticipated to begin October 15, 2009.

If you have questions please call me at: 503-349-7575.

Sincerely

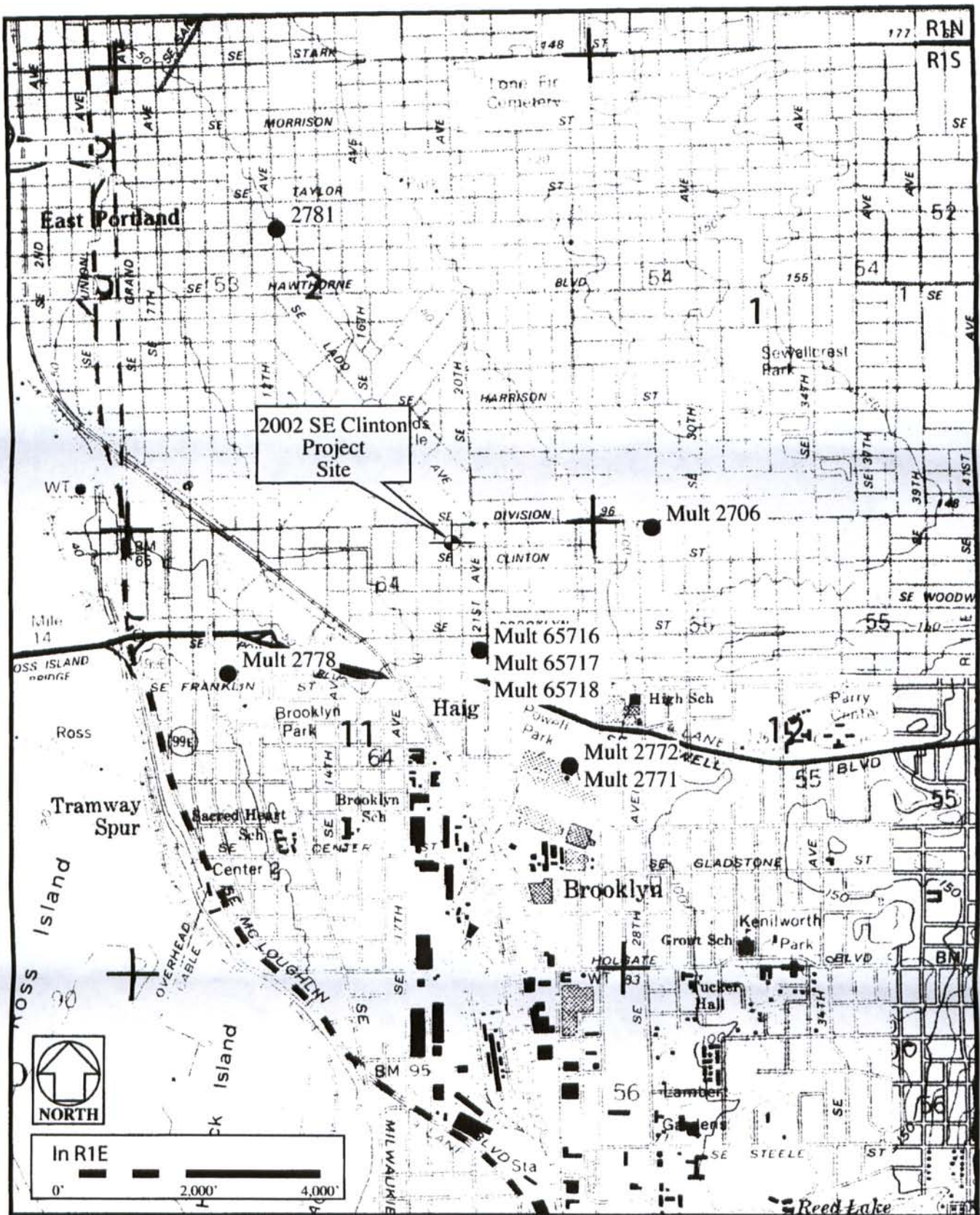


Ron McConnell (Well Constructor Lic #1)
Steinman Drilling

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ROGER N. SMITH ASSOCIATES, INC.
 600 NE MULTNOMAH ST. SUITE 200
 PORTLAND, OREGON 97232

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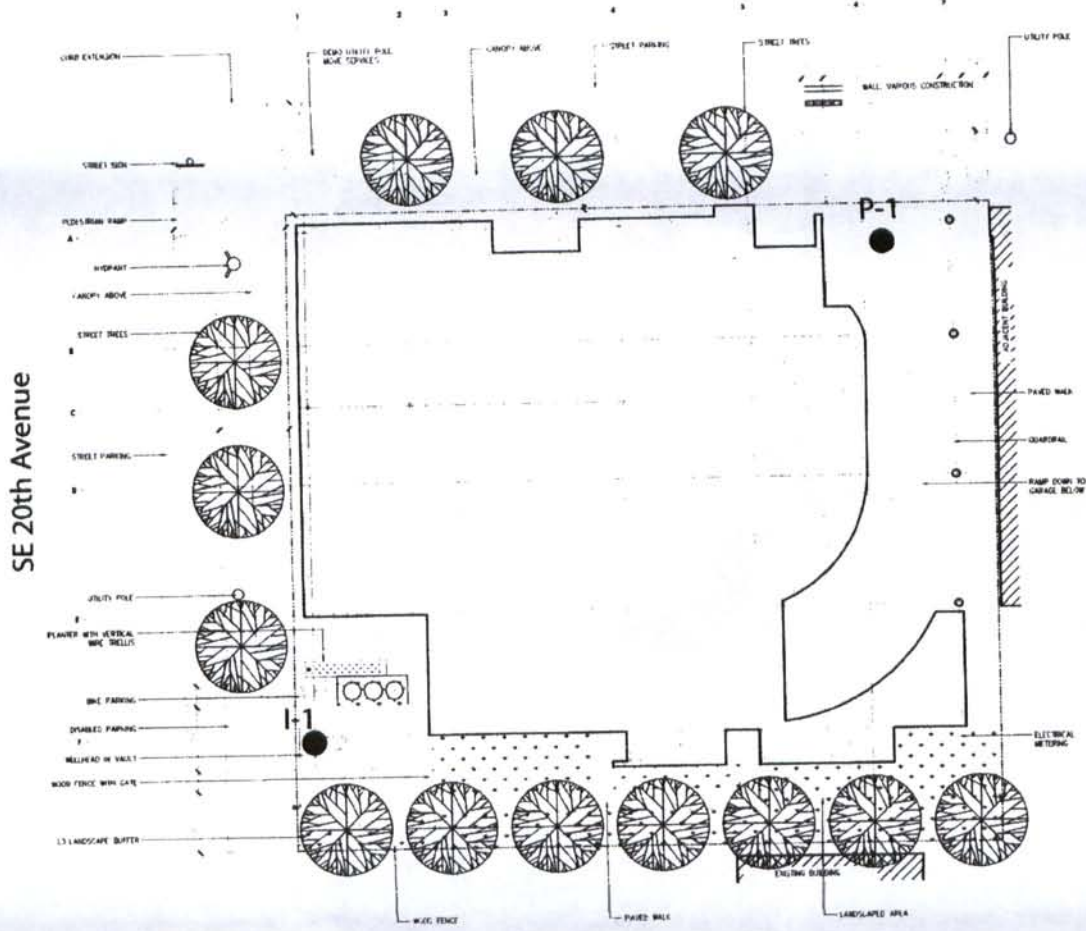
| |
|--|
| Project Manager Roger N. Smith |
| Drawn By Katharine Coates |
| Project Number 09-890 |
| Date Last Modified September 17, 2009 |

Project Location with Local Wells
 (OWRD Well Numbers = Mult 65717)

Map adapted from PortlandMaps 2004 aerial photo
 Approximate Scale: 1 inch = 2,000 feet

Figure 1

SE Clinton Street



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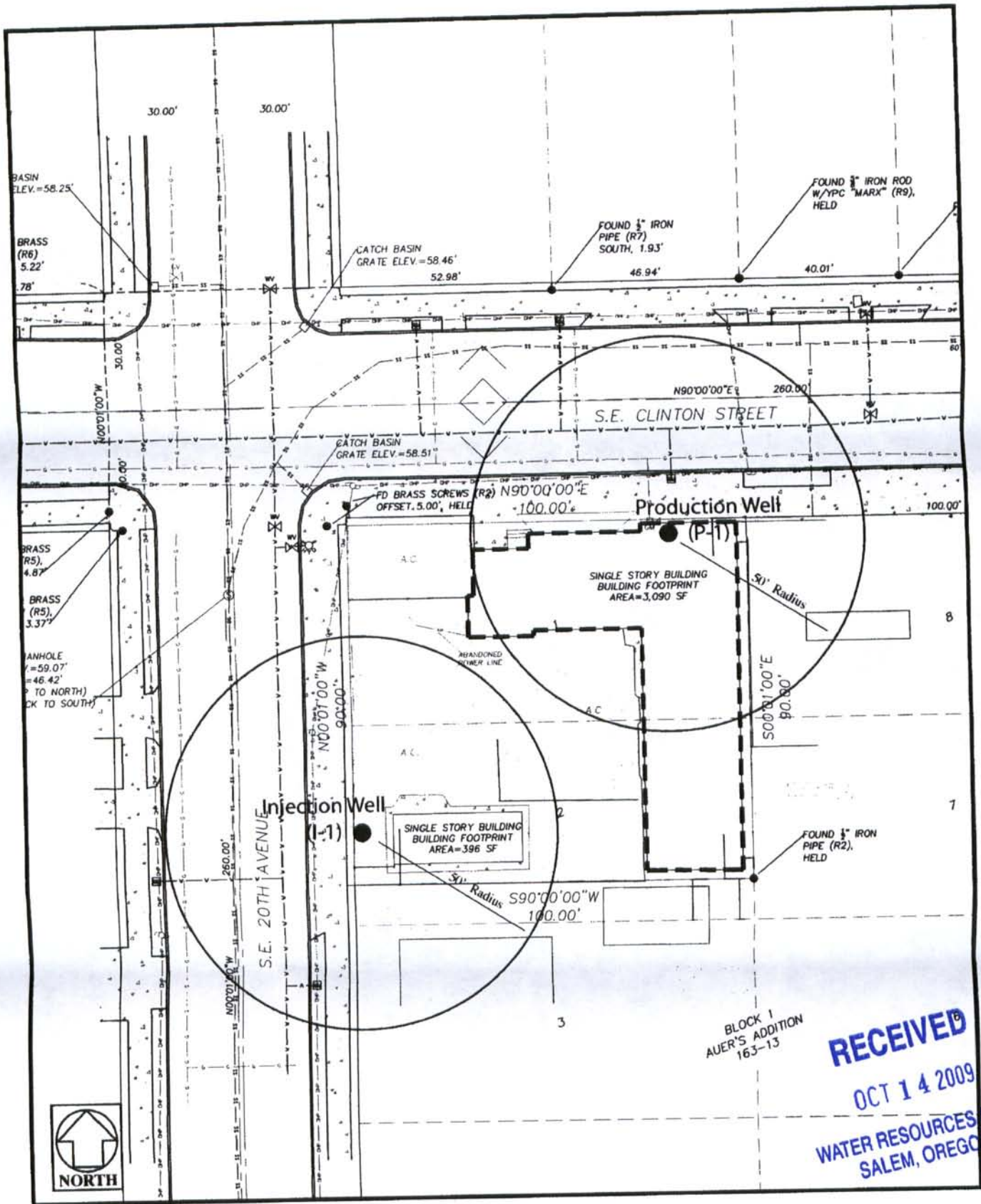


ROGER N. SMITH & ASSOCIATES, P.C.

| |
|---------------------------------------|
| Project Manager Roger N. Smith |
| Drawn By Katharine Coates |
| Project Number 09-890 |
| Date Last Modified October 6, 2009 |

Proposed Building footprint with Wells

Figure 3

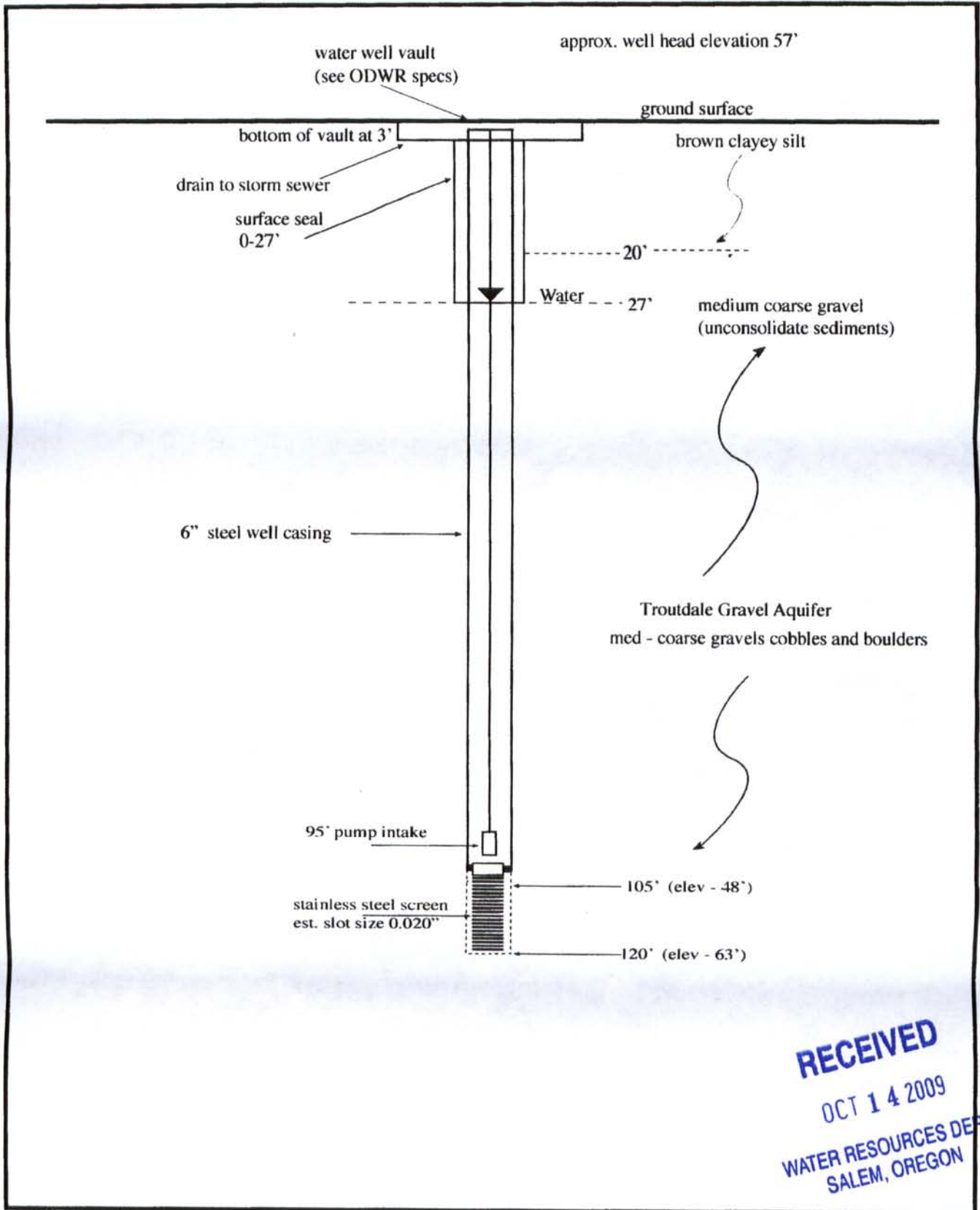


BLOCK 1
AUER'S ADDITION
163-13

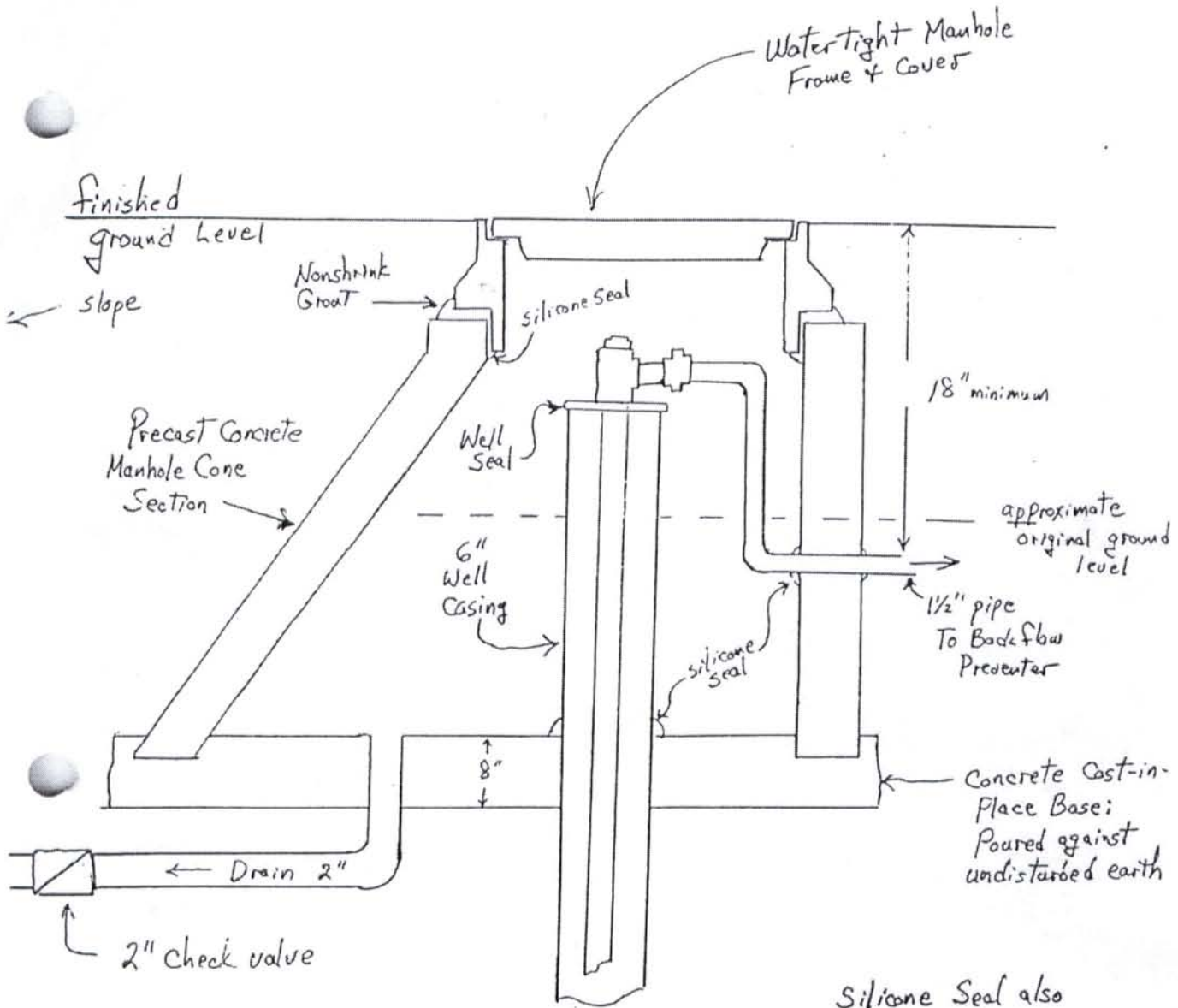
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ROGER N. SMITH ASSOCIATES, INC.
Groundwater and Environmental Consultants

| | |
|--|---|
| Project Manager Roger N. Smith | Radius Map for Cyrk Building |
| Drawn By Katharine Coates | |
| Project Number 09-890 | |
| Date Last Modified September 30, 2009 | Map adapted from PortlandMaps 2004 aerial photo |
| Figure 2 | |



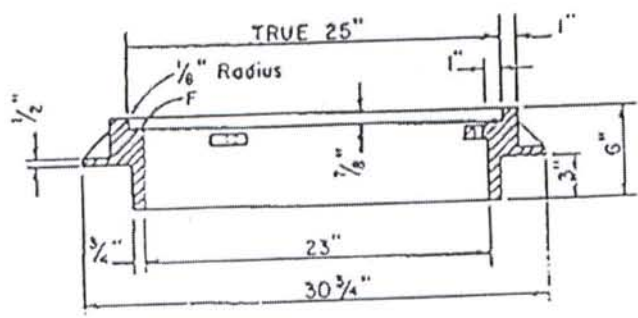
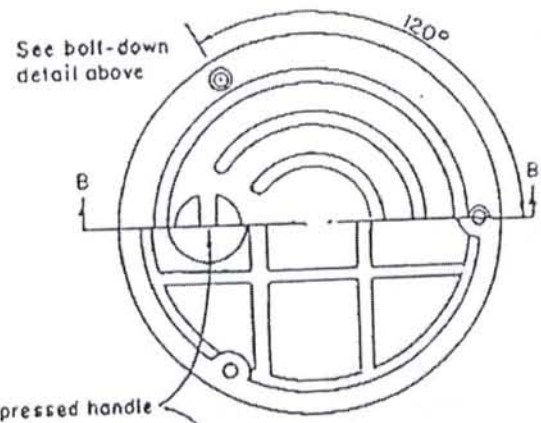
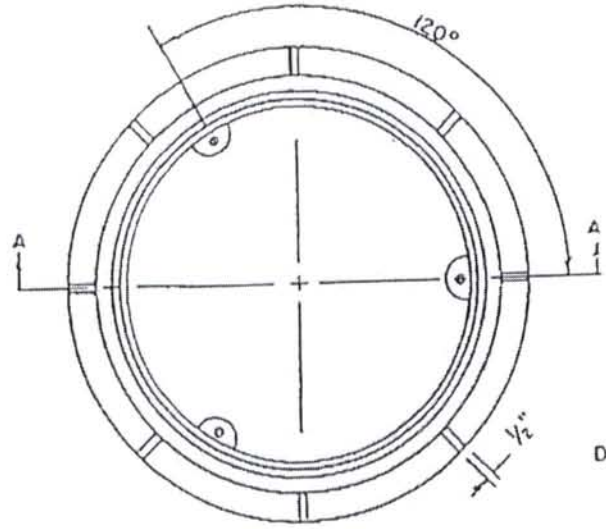
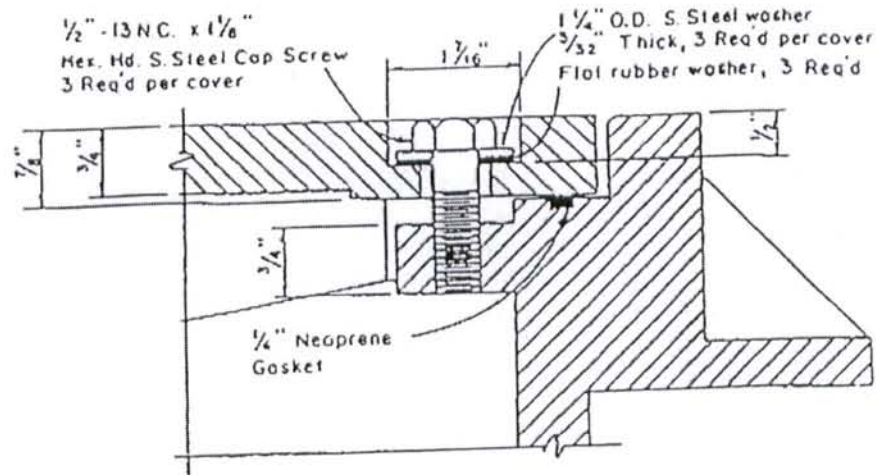
| | | |
|--|--|--|
| Project Manager: RNS | Proposed Production well at: 2002 SE Clinton Street Portland, Oregon | |
| Drawn By: Katharine Coates | | |
| Project Number: 09-890 | | |
| Date Last Modified: August 24, 2009 | approx. horizontal scale: 1 inch = 1.5 feet | |
| | approx. vertical scale: 1 inch = 20 feet | |



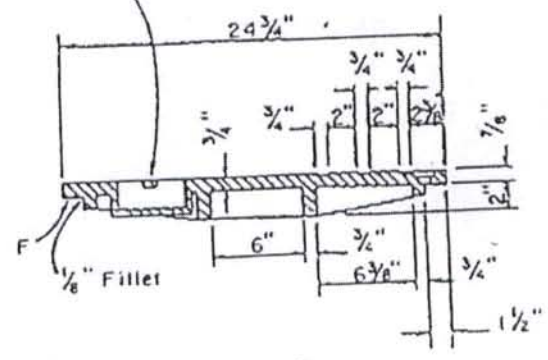
2" drain line extending approximately 25 ft down slope to dry well

Silicone Seal also required around 1" POC Conduit where it enters the concrete manhole approximately 18" below finished grade

NOTE: This well alteration requires a licensed and bonded water well constructors license or a landowners permit and bond to construct. A special standards submittal is also required.
drwn by S.S.



SECTION A-A



SECTION B-B

- NOTES:
1. COVER B FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
 2. MATERIAL SHALL BE OF GREY CAST IRON, A.S.T.M. A-48, CLASS 30.

WATERTIGHT LID



The words "WATER WELL" must be permanently welded into or permanently attached to the vault lid in order to clearly identify the well to Department personnel.



